

GENERATION OF PARTIAL TRACES IN MODEL CHECKING**ABSTRACT**

A method for checking a model includes specifying a path to be traversed through the states of a system under study, such that a specified sequence of events is to occur on the specified path between an initial state and a target set of states on the path. Beginning from the initial state, successive reachable sets of states along the specified path are computed, such that in the successive reachable sets the events occur in the specified sequence. When an intersection is not found to exist between one of the reachable sets on the specified path and the target set, a partial trace is produced along the specified path between the initial state and a termination state in which at least one of the specified events occurs.